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ABSTRACT

This study reviewed the literature in the field of health care management, particularly that which pertains to the management of the clinical laboratory. The research cited should help cytotechnology educators in planning a management curriculum and developing program objectives to train cytotechnologists in management. The report is an annotated review of literature in four sections, each of which has several subsections. The first section is a general category that contains examples of management training for medical technology students and all-purpose texts that cover most areas of laboratory management. The second section includes material requirements in the cytology laboratory, quality control, and fire and safety procedures. In the third section, the following types of materials are reviewed: management tools, communication, interviews and appraisals, and discipline and counseling. The fourth section reviews materials on Management by Objectives, management styles, staffing and workload, and planning and budgeting. (The literature cited reflects the type of management--positive discipline and participative management--practiced at the South Bend Medical Foundation where the management curriculum was originally written.) (KC)

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DEVELOPING A MANAGEMENT CURRICULUM FOR A CYTOTECHNOLOGY TRAINING PROGRAM

BY

MAUREEN E. MILLER

Graduate Student

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
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Submitted in partial fulfillment of the requirements
for the course S591-Exit Project
Indiana University at South Bend
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Accepted by the faculty of the School of Education, Indiana University at South Bend, in partial fulfillment of the requirements for the course S591-Exit Project.

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April 9, 1984

INTRODUCTION

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EDUCATION:

Indiana University at South Bend South Bend, Indiana	B.A. in Psychology (1976)
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RATIONALE:

The author became interested in management curricula when her supervisor asked her to help write objectives for a management curriculum for the Medical Foundation's program. Having little knowledge of management skills and responsibilities other than an in-service seminar given at Eastern Maine Medical Cetner, she had a very difficult time trying to organize a logical progression of the material. She also had a difficult time searching through the large amount of literature to find pertinent, applicable books and articles. The author hopes that this study will aid other cytotechnology instructors in the development of their management curricula.

CHAPTER I

INTRODUCTION

In recent years, laboratory management has begun to emerge as a profession in its own right. Laboratory management requires a unique combination of skills and knowledge. However, these skills and this knowledge are not the same skills and knowledge that are taught in most technical training programs today.(1)

Historically, technologists promoted into management are not chosen on the basis of their managerial skills. In some systems, promotion is based largely on technical competence rather than managerial ability.(2) Other systems are based on seniority and a technologist may suddenly find oneself in a supervisory position by default.(3)

While there is agreement that the curricula of training programs should include management skills, very few of these training programs offer comprehensive management training. In a survey of the twenty-four schools of medical technology in the state of Pennsylvania, it was found that management training sessions ranged from zero to forty-four hours in length, the average being thirteen hours. However, in nearly half the schools, students received five hours or less of management training.(4)

The situation may be even more dismal in cytotechnology training programs because historically, cytotechnologists have not been thought to be involved in laboratory management.(5)

There have been several descriptions of management training approaches for medical technology students in the literature. Jacobs and Wildermann described a one credit hour course in Laboratory Management and Supervision.(6) Dellinger and Umiker described a 40 hour management course for a one year hospital-based program.(7) Kiehn described a student project that was designed to bring management skills into the medical technology curriculum.(8) Morris described a two semester course in which students participated in small groups, the small groups being responsible for the production of several class projects related to management.(9) DeNora described a program where each student was required to perform a management task and share their experience with their classmates.(10) There are few, if any, articles in the literature on management training for cytotechnology students.

Statement of the Problem

Recent surveys of cytotechnologists and pathologists conducted by the Cytotechnologist Programs Review Committee (CPRC) of the American Society of Cytology (ASC) in affiliation with the Committee of Allied Health Education and Accredidation (CAHEA) have shown that many cytotechnologists are responsible for significant aspects of laboratory management, however, many cytotechnologists programs are deficient or entirely lacking in a management curriculum. The committee recommended the following management skills included in the cytotechnology curriculum:

laboratory systems and procedures, quality control systems, record keeping systems, personnel evaluations, reporting methods and writing and development of manuals/protocols.(11) This study dealt with the development of a management curriculum for a one-year certificate program in cytotechnology.

Purpose of the Study

It is the purpose of this study to review the literature in the field of health care management, particularly that which pertained to the management of the clinical laboratory. It is hoped that the research cited here will help cytotechnology educators in planning the curriculum and developing its program objectives.

Even the best management training session can not hope to equal the actual "hands on" experience of management. It is hoped that the implementation of a management training program will first develop better managers who know where to look for resources when they need help. Secondly, it is hoped that even though a student should decide not to become a manager, the management training session will make him or her a better employee by being exposed to the problems their manager faces.

Organization of the Study

The subject matter of the annotations is broken down into four sections, each of which has several subheadings.

The first section is a general category which contains examples of management training for medical technology students and all-purpose texts which cover most areas of laboratory management.

The second section, titled "Managerial Responsibilities" includes: Material Requirements in the Cytology Laboratory, Quality Control, and Fire and Safety Procedures. A few all-purpose texts are also included in this section.

The third section, titled "Supervision and Interpersonal Skills" contains the following subheadings: Management Tools (job descriptions, performance standards, and procedures), Communication, Interviews and Appraisals, and Discipline and Counseling.

The fourth section, titled "Leadership" contains the following subheadings: Management by Objectives (MBO), Management Styles, Staffing and Workload, and Planning and Budgeting.

The breakdown of the last three categories is one possible approach to the organization of a management curriculum for cytology students.

Limitations of the Study

The literature cited here reflects the type of management practiced at the South Bend Medical Foundation where the management curriculum was originally written. Not all laboratories favor the use of positive discipline and participative or Theory Z management.

Also, literature was chosen on the basis of its applicability to the clinical laboratory. When literature was lacking in certain areas, literature from hospitals or other health care organizations was then chosen. If the need for literature in a certain area still existed, literature was then chosen from general or industrial sources.

GLOSSARY

appraisal - "planned, formal, and periodic management activity in which subordinates' on-the-job behavior is evaluated for some ulterior purpose .... Some possible purposes for performance appraisal are as follows: salary decisions, behavior modification, determination of level of competence, determination of need of training, communication (obtaining feedback from subordinate), evaluation of progress toward or achievement of job objectives, and discussion of interface between subordinates' and organizations' goals and how each can be achieved."(12)

budget - "the forecast of expenditures necessary to perform the anticipated workload over a designated time period."(13)

communication - "exchange of information and understanding; two-way transmission of ideas such that, from information provided, feedback is received."(14)

counseling - a management duty in which the manager and employee attempt to solve an employee's work-related problem by suggestions, recommendations, and setting goals.

cytology - the study of cells.

cytotechnologist - allied health professionals trained the detection of diseases, especially cancer, through microscopic evaluation of cells.

interview - the process of evaluating an applicant for a position, usually done by face-to-face questioning.

job (position) description - "a written document summarizing the task and performance standards as obtained through job analysis. A job description usually includes a heading, job summary, tasks performed, job specifications, criteria of performance, and working conditions."(15)

leadership - "a process whereby a person imaginatively directs, guides, and influences subordinates to attain organizational goals."(16)

management - "the guiding of human and physical resources into dynamic organization units that attain their objectives to the satisfaction of those served and with a high degree of morale and sense of attainment on the part of those directed."(17)

management by objectives (MBO) - "a management philosophy that proposes that each person in an organization have specific and reasonable objectives that he sets in collaboration with his supervisor. Standards of performance and a time frame within which the objectives should be accomplished are also established."(18)

management style - an approach to, or pattern of management; that is, how one acts in a management role.

motivation - "the process of influencing others so that they do willingly what is to be done and do it well."(19)

objective - "the specific end result expected of a manager and the time at which it will be achieved." This is also applicable to employees.(20)

performance standards - "a statement of either minimal or average levels of acceptable behavior or results. Performance standards are an integral part of position descriptions."(21)

planning - "the methodical selection of a series or set of complimentary actions for the purpose of pursuing an improved position. It requires an understanding of the circumstances spawning the plan and a deliberate choice of intermediate positions that best assure the ultimate destination."(22)

positive (corrective) discipline - a method of disciplining employees in which the emphasis is placed on salvaging the employee. The manager and the employee both share the responsibility for correcting the problem which led to the disciplinary session.

procedure - "a sequence of technical, clerical, and aide steps constituting a laboratory activity."(23)

procedure manual - a systematic and complete collection of procedures.

quality control (assurance) - "the sum of all those activities in which the laboratory is engaged to ensure that information generated by the laboratory is correct."(24)

staffing - "the process of selecting and developing, personnel to fill positions within the organization."(25)

supervision - an aspect of the manager's role concerned with the management of personnel.

Theory X - management style whose basic premise is that "people are inherently lazy and can only be motivated by external rewards and punishments exerted through close supervisory control."(26)

Theory Y - management style whose basic premise is that "individuals have an inherent drive for growth and development, are self-actualizers and can be left to their own devices to pursue organizational goals."(27)

Theory Z - management style whose basic premise is that "individuals are composed of elements of both X and Y and that the central challenge lies in creating a common culture in which the organization realizes it can meet its objectives only through meeting the needs and objectives of its participants."(28)

workload recording - "a management aid designed to effectively monitor the productive time expended by technical, clerical, and aide staff performing procedures in the clinical laboratory. The generated data can assist in making decisions regarding space, staffing, equipment, and technical methodology selection."(29)

ANNOTATIONS

CHAPTER II

ANNOTATIONS

General

Examples of Management Training for Med Tech Students

Jacobs RS, Wildermann RF. A course in management and supervision for medical technology students. Am J Med Tech 1978;44(June): 646-8.

The authors described a one credit hour course in management. Although the course was primarily lecture and discussion, it was supplemented by small group instruction, student initiated projects, guest lecturers, management "games," and audiovisual aids. It was found that student involvement and diverse presentations maintained student interest and participation. Course content varied from year to year, depending on student input.

Dellinger S, Umiker W. Teaching management to MT students. Med Lab Obs 1982;14(Apr):91-96.

Based on literature searches, job descriptions, and interviews with young supervisory technologists, the authors developed a curriculum for a 40-hour course in management training for medical technology students. Dellinger and Umiker emphasize that while all students probably do not desire to become laboratory managers or supervisors, exposure to the problems and responsibilities faced by managers will help them become more understanding and cooperative employees. Included are a currciulum outline and a set of general instructional objectives.

Kiehn WK. Laboratory management training for medical technology students. Lab Med 1981;12:186-8.

Kiehn found that there was a real need for management training for her students, but found it difficult to justify the creation of an entire course. So she incorporated a class project into the microbiology curriculum in which students were required to budget, schedule, equip, and choose methods for an imaginary microbiology laboratory. Students felt the exercise gave them a good insight into a manager's responsibilities.

Morris BL. Let students write their own textbook. In: Friedman EM. Sharpening laboratory management skills. Oradell, New Jersey: Medical Economics Company, 1978:99-102.

The author found that students did not seem to learn management principles very well by the standard lecture format. So, small groups were assigned a topic on management duties and were responsible for researching the topic, presenting a group paper, and presenting a group activity illustrating the concept. Students were also required to read the American Society of Medical Technology's Personnel Relations Handbook, write a personal reaction to it, and participate in a small group discussion on the topic. Also, working in pairs, students developed a step-by-step procedure using journal articles. Finally, small groups prepared model work schedules for the lab.

De Nofa JR. Our students train to become supervisors. In: Friedman EM. Sharpening laboratory management skills. Oradell, New Jersey: Medical Economics Company, 1978:379-81.

The author reviewed the existing management curriculum of the medical technology program and found that students were only receiving bits and pieces of information in management skills. A formal program was developed where each student was required to perform a management task, present a summary of it, and describe the methods he chose to complete it. Tasks included: writing a job description, interviewing, evaluating instruments, and inventory and ordering. Students were also introduced to analyzing work flow, communication, and writing methods and procedures.

General

All-Purpose Texts

Booth E. Management in the cytology laboratory. The Cytotechnologist's Bulletin 1977;14:57-9.

The author attempted to outline the basic functions of management in a cytology laboratory. He broke down management into four principal functions: planning, organizing, directing, and controlling. The treatment of each of these areas is adequate with the exception of the directing function which is the supervision and guidance of personnel. The author believed that good communication and the manager acting as a role model for employees will prevent most personnel problems, and no mention is made of discipline techniques, counseling methods, motivation of employees, and performance appraisals, as well as other interpersonal skills managers need to know.

Karni KR, Viskochil KR, Amos PA, eds. Clinical laboratory management: a guide for clinical laboratory scientists. Boston: Little, Brown, and Company, 1982:579 p.

The editors have put together a very thorough book on the management of the clinical laboratory. Chapters range from surveys of clinical labs, the hospital and its relation to the lab, independent labs, and the behavioral aspects of management to workload recording, management information systems, and labor relations. The inclusion of a chapter on patients rights and responsibilities indicates how comprehensive this text really was. Each chapter began with an outline and a glossary of key words. Also helpful were the numerous graphs and tables.

Lundberg GD, ed. Managing the patient-focused laboratory. Oradell, New Jersey; Medical Economics Company, 1975;366 p.

While some chapters in this book might not be helpful in developing a management curriculum for cytotechnology students, the approach to management spelled out here is extremely important. Lundberg set a standard to be strived for: a system of patient care where the patient's and the public's interest are the chief concern. How to achieve this standard through laboratory management was the basis for this work.

Liebler JG, Levine RE, Dervitz HL. Management principles for health professionals. Rockville, Maryland: Aspen Systems Corporation, 1984:351 p.

While not written specifically for laboratory managers, this text was none the less very useful. It was organized into two parts: Selected Management Functions and Organizational Environment and Dynamics. The Context of Management Practice. Each chapter began with a list of chapter objectives which may be very helpful in developing a management curriculum.

Mc Connell CR. Health care supervision: a special kind of management. Health Care Supervisor 1982;1(Oct):1-13.

This was an article that could be used for both cytotechnology educators and students. Educators would find it useful for bridging the gap in the literature between industrial management and health care management. Students would find it useful for explaining the differences between the two kinds of management. Another section entitled "Evaluating One's Suitability for Health Care Supervision" would be very useful for students to read to determine if their interest lies in supervision as a career.

Managerial Responsibilities

All-Purpose Texts

Woodworth F. Organization of the laboratory. In: Keebler CM, Reagan JW, eds. A manual of cytotechnology. Chicago: American Society of Clinical Pathologists, 1977:254-60.

The author presented a short overview of a broad range of topics. Topics included: physical design, professional and nonprofessional laboratory personnel, sign-out systems, recording-keeping and specimen storage, and quality control. This chapter provides a good base for the writing of objectives.

Bales CE, Dunfee GR. Principles of operation of a laboratory of cytology. In: Koss LG, ed. Diagnostic cytology and its histopathologic bases. Philadelphia: J.B. Lippencott, 1979: 1254-60.

This was another short overview of a laboratory manager's responsibilities. It included sections on laboratory safety, organization, quality control, and reporting systems.

Material Requirements

Rappoport AE. Manual for laboratory planning and design. Chicago: College of American Pathologists, 1960:98 p.

Rappoport has written a small book that contains a wealth of information on the material requirements of a laboratory. Especially valuable was the first chapter entitled "Planning" which illustrated extremely well the factors to be considered in laboratory design.

Garikes AG. Laboratory planning: planning the flexible laboratory environment. Hospitals 1982;56(Aug):80-3.

The author broke down the process of designing a laboratory into several steps: estimating square footage per department, considering the use of the open lab concept or flexible or movable laboratory furniture, determining the flow of functional relationships from the lab's design, determining its location in relation to other departments, and finally, decorating it to be aesthetically pleasing. Although the article did not focus specifically on cytology laboratories, the step-by-step approach to lab design could be useful for cytology educators in writing a management curriculum.

Quality Control

Melamed MR et al. Cytology. In: Inhorn SL, ed. Quality assurance practices for health laboratories. Washington: American Public Health Association, 1978:509-44.

This was an extremely thorough coverage of all aspects of quality control, including laboratory facilities and equipment, record keeping and reporting, specimen handling, evaluation of slides and screening accuracy, and qualifications of personnel.

Fire and Safety Procedures

Harris MJ. Laboratory Safety. In: Keebler CM, Reagan JW, eds. A manual of cytotechnology. Chicago: American Society of Clinical Pathologists, 1977:261-3.

A very succinct treatment of the principles of laboratory safety, specifically it dealt with emergency measures, fire and toxicity of chemicals, and contamination hazards.

Hicks MR. Basics of clinical laboratory safety. In: Snyder JR, Larsen AL, eds. Administration and supervision in laboratory medicine. Philadelphia: Harper & Row, 1983:339-59.

This was a very broad, basic treatment of most areas of safety, including mechanical, electrical, infectious, and chemical hazards.

Supervision and Interpersonal Skills

Management Tools

Umiker WO. The position description. In: Umiker WO, The effective laboratory supervisor. Oradell, New Jersey: Medical Economics Books, 1982:41-53.

This was a very concise chapter on the importance of position descriptions and on what should be included in a position description. The author included a complete position description at the end of the chapter for reference.

Umiker WO. Good position descriptions help fit the employee to the job. Med Lab Obs 1981;13(Sept):33-9.

In this article, Umiker demonstrated the usefulness of job descriptions and gave eleven points for developing or refining them.

Umiker WO. Standard of performance. In: Umiker WO. The effective laboratory supervisor. Oradell, New Jersey: Medical Economics Books, 1982:54-8.

Umiker felt that standards of performance were so important he devoted a chapter to them. He included sections on the types of performance standards, the criteria for good standards, how to establish standard, joint supervisor-employee participation, and checking.

Reed LB. Let's zero in on performance standards. Lab Management 1978:13(June):56-60.

This was a very useful article, as the author brought together the principles of Management by Objectives (MBO), job descriptions, and performance standards and related how they should function together. He also gave guidelines for writing performance standards and listed the short- and long-range benefits from using performance standards.

Umiker WO. SPs belong in your managerial portfolio. Med Lab Obs 1981;13(Apr)3-9.

The author presented a list of techniques that were found to be useful in preparing standards of performance. He also listed the various forms of standards and what forms of behavior should or should not have standards written for it.

Umiker WO. Peformance standards make evaluations almost easy. Med Lab Obs 1979;11(Aug):63-74.

This was a good article as it tied in job descriptions, performance standards, and performance appraisals. It also discussed "contracting" in which the manager and employee set goals for the employee to achieve.

Bender JL et al. Tentative guidelines for clinical laboratory procedure manuals. Villanova, Pennsylvania: National Committee for Clinical Laboratory Standards 1983;NCCLS Publication Vol. 1, No. 13.

The bulk of this publication laid out the guidelines for writing a procedure manual. However, very useful were the forward which told why procedure manuals were required and their possible uses and the two examples of procedures contained in the appendix.

Snyder ME, Pendergrass TM. Step by step by step: a complete procedure manual. Med Lab Obs 1981;13(Apr):173-80.

The authors were the only two technologists in a small laboratory and ran into the problem of not having information on procedures compiled in one place while one person was on vacation. The problems they ran into illustrate how useful a procedure manual can be. The authors listed the information included in their procedure manual and gave examples of procedures and flowcharts they used.

Gough A. Updating your procedure manual; a tough job made almost easy. In: Friedman EM. Sharpening laboratory management skills. Oradell, New Jersey: Medical Economics Company, 1978:332-4.

The author found by enlisting the entire staff of her department that updating the procedure manual was much easier. Each person was assigned two procedures, procedures that either they were not familiar with or which they had not originally written. The author found that this led to careful investigation of the procedure by the person assigned. The list of errors found in several of the procedures illustrates the need for an accurate, up-to-date procedure manual.

Communication

Munn HE, Metzger N. Effective communication in health care: a supervisor's handbook. Rockville, Maryland: Aspen Systems Corporation, 1981:264 p.

This book contained many useful chapters on communication. Among the most useful were chapters on deliberative and active listening, nonverbal communication, and how to interview. Also helpful were a list of objectives at the beginning of each chapter and a programmed chapter review in the index.

Smith VM, Bass TA. Communications for health professionals. Philadelphia: J.B. Lippencott Company, 1979:231 p.

This book was written for college-level students or for post-secondary professional programs in health care. Chapters of special interest for management training were on interviewing and communication in the organization. Each chapter began with a list of instructional objectives and concluded with a summary and a list of exercises.

Krieg AF. Laboratory communication: getting your message through. Oradell, New Jersey: Medical Economics Company, 1978:3-42 and 131-151.

While a good deal of this book concerned itself with physican-laboratory communications, the first section on basic principles of communication and a chapter on managing the laboratory may be helpful to cytotechnology educators. Each chapter was followed by a summary for quick reference.

Munn HE. Not by words alone. The Health Care Supervisor 1983; 1(Oct):1-10.

This was a most interesting article on nonverbal communication. It showed how by understanding what is being communicated nonverbally, supervisors can deal more effectively with their employees. It included sections on each of the forms of nonverbal communication, such as facial expression, eye contact, body action, and touch.

Interviews and Appraisals

Metzger N. Interviewing skills: selecting the right candidate. Health Care Supervisor 1982;1(Oct):41-50.

The author presented a step-by-step approach to the employment interview. He also included such useful information as what a supervisor should look at on an application form, a checklist to analyze listening habits, and other considerations for a successful interview.

Levoy RP. Are job interviews a hassle for you? Dental Economics 1976;26(Oct):75-8.

This is a very comprehensive article on the interpersonal aspects of job interviewing. The author gave a list of helpful suggestions on how to conduct the interview. Included is a list of "open-ended" questions which encourage the applicant to talk and provide the interviewer with useful information on the applicant.

Ivey TR. Keeping the employment interview legal. Med Lab Obs 1981;13(Nov):97-115.

This article contained a lot of information on what may or may not be asked in an employment interview or on an application form. It also contained the reasoning behind government laws concerning questions that could possibly discriminate. The article contained a very helpful chart broken down into categories, such as race, sex, age, religious preference and listed acceptable and unacceptable inquiries for each category.

Wolfgang JW, Brigando LM. Standards and appraisal of laboratory performance. In: Snyder JR, Larsen AL, eds. Administration and supervision in laboratory medicine. Philadelphia: Harper and Row, 1983:210-29.

The authors attempted to define performance appraisals and list the purposes of them. Next, they named the essential ingredients for effective performance appraisals. Finally, they discussed the designing of performance appraisals, including the interview.

Graves JP. Let's put appraisal back in performance appraisal: part 1. Personnel J 1982;61(Nov):844-9.

Graves JP. Let's put appraisal back in performance appraisal: part 2. Personnel J 1982;61(Dec):918-23.

The basic premise of this article was that most so-called performance appraisals are merely discussions about performance rather than judgemental processes of evaluating the performance of an individual. Part 1 described noncomparative methods of appraisal which consider the performance of an individual with little or no reference to the performance of others. Part 2 described comparative methods of appraisal where the performance of an individual was compared to the performance of another.

Umiker WO. Eleven common errors in performance reviews. Med Lab Obs 1982;14(Jan):55-9.

Umiker identified eleven of the most common errors in performance appraisals and offered solutions for them. He emphasized that performance appraisals can be valuable planning tools rather than disciplinary sessions.

Counseling and Discipline

Roseman E. What every supervisor should know about counseling. In: Friedman EM. Sharpening laboratory management skills. Oradell, New Jersey: Medical Economics Company, 1978:193-9.

The author stressed the importance of planning in counseling employees. He also listed the various types of formal counseling in which managers engage. Using an example, he demonstrated how a worksheet can be helpful in the counseling of a problem employee. Using the same example, the author contrasted a counseling session by an unexperienced counselor with one by an experienced counselor. A self-evaluation checklist of personality traits essential for effective counseling was included.

Galosy J. Teaching managers to motivate: when theory isn't enough. Training 1983;20(Nov):49-53.

This was a pragmatic approach to an area of management that too often consists purely of psychological and behavioral theories. The author described a workshop training session in which managers learn a five-step approach to changing employees' behaviors. This approach consists of: 1. Describing the employee's behavior. 2. Describing the desired change. 3. Allowing the employee to practice the new behavior. 4. Reinforcing the new behavior. 5. Choosing rewards carefully. Included was an extensive list of reinforcement options.

Lynn G. How to create a motivating work climate. Supervision 1983;45(June):5-6.

This was a slightly different approach to motivation than Galosy's and may be easier for some supervisors to use. Lynn's approach consisted of: 1. Determining work payoffs for the employee. 2. Helping the person attain his goals as the person works toward the organization's goals. The supervisor is responsible for setting goals and giving feedback, allowing each person to do his job without interference, and conveying his confidence in their abilities to his employees.

Metzger N. How to discipline: the positive approach. In: Metzger N. The health care supervisor's handbook. Germantown, Maryland: Aspen Systems Corporation, 1978:71-82.

This chapter contained the principles of positive discipline as well as the rules supervisors should follow to effectively use positive discipline. In addition, it also listed the various forms of discipline supervisors have available, such as oral reprimands, warnings, suspension and showed how to apply the principles of positive discipline to them.

Asherman IG. The corrective discipline process. Personnel 1982;61(July):528-31.

Asherman began this article with a description of progresssive discipline, a system of escalated penalties for repeated infractions, and listed the current characteristics of progressive discipline. Next, he contrasted progressive discipline with corrective discipline, a system in which the employee and the manager share the responsibility for correcting the problem.

Asherman IG, Vance SL. Documentation: a tool for effective management. Personnel 1981;13(Aug):641-3.

The authors presented the point of view that documentation can be used to improve employee performance instead of just being a protective mechanism for supervisors when disciplinary action is taken. The authors compared and contrasted anecdotal and formal documentation and listed what information should be included in each type.

Leadership

Management by Objectives

Deegan AX. Management by objectives for hospitals. Germantown, Maryland: Aspen Systems Corporation, 1977:225 p.

This was a useful book for understanding MBO. It was written using hospital examples and hospital terminology. The chapters proceeded in a logical fashion from defining MBO, and determining if one is suited to implement MBO, to writing objectives, analyzing problems and alternatives, and implementation strategies. Many chapters were followed by a conclusion or a summary and workbook-type questions and exercises were incorporated into the text.

Mc Conkey DD. MBO for nonprofit organizations. New York: AMACOM, 1975:223 p.

This book was quite similar to Deegan's in its approach to MBO. However, its emphasis was a little more broad, focusing on the entire nonprofit sector. The author gave several examples of MBO in different nonprofit organizations and one chapter focused on its use in a hospital.

Kessler TW. Management by objectives. In: Metzger N, ed. Handbook of health care human resources management. Rockville, Maryland: Aspen Systems Corporation, 1981:181-92.

Kessler presented the principles, process, and applications of MBO in this chapter. He illustrated his points with two examples, one from industry (General Electric), the other from a community hospital.

Management Styles

Snyder JR. Leadership styles and group effectiveness. In: Snyder JR, Larsen AL, eds. Administration and supervision in laboratory medicine. Philadelphia: Harper and Row, 1983:97-129.

The main focus of this chapter was on leadership styles, specifically Theory X and Theory Y. Theory Z was not mentioned here. Also discussed were factors influencing leadership style, measures of group effectiveness, and a section on Management by Objectives (MBO).

Loder RJ. Your managerial style. In: Friedman EM. Sharpening laboratory management skills. Oradell, New Jersey: Medical Economics Company, 1978:43)-3.

This was a good article describing Theory X and Theory Y management and how to incorporate both styles into practice when appropriate. Also included was a discussion on participative management and its relationship to these two theories.

Martin BG. Participative management: let's turn the myth into reality. Med Lab Obs 1982;14(July):113-4.

The basic premise of this article as that a manager should know his staff and draw them into the management process slowly and carefully. Because of the number of bright, highly skilled practioners in the laboratory, there are bound to be benefits for both employees and managers.

Shortell SM. Theory Z: implications and relevance for health care management. Health Care Management Rev 1982;2(Fall):7-21.

While the main focus of this article was on Theory Z and its effects on hospital management, the introductory section and the section on implications and relevance of Theory Z for the health care field were well worth reading.

Joiner CW. Theory Z in practice: one manager's story of how he made the Z concept work. Management Rev 1983;25(May):48-53.

Although the two examples the author used were both from industry, this was an interesting, useful article on implementing Theory Z management and the benefits derived from its implementation.

Workload and Staffing

College of American Pathologists Workload Recording Committee. Manual for laboratory workload recording method. Skokie, Illinois: College of American Pathologists, 1983:1-34.

Much of this manual was devoted to the actual use and calculation of the workload recording method. Helpful here was the first section on basic concepts of workload recording.

Shuffstall RM, Hemmaplardh B. Organizing and staffing the hospital laboratory. In: Shuffstall RM, Hemmaplardh B. The hospital laboratory: modern concepts of management, operations, and finance. St. Louis: C.V. Mosby Company, 1979:29-37.

This chapter tied together job descriptions, work schedules, and workload measurements and related them to staffing the laboratory.

Jones PF. Graph your workload to pinpoint staffing needs. Med Lab Obs 1981;13:57-61.

By plotting the hospital bed census against the month of the year, Jones found that the workload of the laboratory was proportional to the bed census. He also found that the bed census experienced the same highs and lows consistently year after year. He then used this information to determine his staffing needs. He also showed how similar graphs can help solve staffing problems by shift, by department, or by the day of the week.

Planning and Budgeting

Porter-O'Grady T. Planning: a framework for action. The Health Care Supervisor 1983;1(July):29-41.

This was a concise article on the planning process. The author discussed planning strategies, work areas subject to planning, how to write the plan, and evaluating the progress of the plan.

Haimann T. The managerial planning function. In: Haimann T. Supervisory management for health care institutions. St. Louis: The Catholic Hospital Association, 1973:57-71.

This chapter discussed the importance of planning and the setting of primary and secondary objectives. Also discussed was the relationship of policies, procedures, and methods to the attainment of objectives. Also included was a section on budgets as a part of planning.

Bennington JL, Westlake GE, Louvau GE, eds. Financial management of the clinical laboratory. Baltimore: University Park Press, 1974:164 p.

The editors attempted to supply laboratory personnel with the basic principles of financial management. Chapters included: cost analysis, test price analysis, capital budgeting for the clinical lab, lease-or-purchase decision analysis, and the human side of budgeting. Each chapter was followed by a summary.

Shuffstall RM, Hemmaplardh B. Financial planning. In: Shuffstall RM, Hemmaplardh B. The hospital laborary: modern concepts of management, operations, and finance. St. Louis: C.V. Mosby Company, 1979:125-40.

The authors first described the characteristics of the laboratory that affect its financial planning. Keeping these factors in mind, they outlined the process of financial planning using flow charts. Also illustrated were growth patterns after implementing a technique and break-even analysis.

Maratea JM. Don't play the budgeting game. In: Friedman EM. Sharpening laboratory management skills. Oradell, New Jersey: Medical Economics Company, 1978:353-5.

The author describes a "game" played annually by the hospital administration vs. the laboratory management: deciding on the lab's budget. At the author's hospital a system of trust and fair play was developed, based on providing the best possible health care for the patient at the lowest price. Included are the rules that were agreed upon and illustrations of how to make them work which are really a common-sense approach to preparing a budget.

CHAPTER III

SUMMARY AND CONCLUSIONS

Summary

There were several possible approaches to implementing a management training program. It could range from a class project incorporated into one area of instruction as described by Kiehn or it might take the form of a one credit hour course in a degree program as described by Jacobs and Wildermann or it might take the form of a forty hour course in management training for a certificate program as described by Dellinger and Umiker. Although the two examples described by Jacobs and Wildermann and by Dellinger and Umiker were basically lecture format with some supplements, management training programs seem to lend themselves well to student-initiated projects, individualization, and small group activites. In an example described by Morris, small groups of students were assigned several projects, including researching a management topic, presenting a group paper on the topic, and presenting a group activity illustrating the topic. De Nofa described a program where each student was required to perform a management task, present a summary of it, and describe the methods chosen to complete it.

There were several useful all-purpose texts that might be very helpful to the cytotechnology educator as they cover a broad range of management topics. The article by Booth dealt specifically with the management of the cytology laboratory.

The work by Karni, Viskochil, and Amos was a very comprehensive text covering nearly all aspects of laboratory management. The text by Lundberg was quite thorough and written from the viewpoint that the interest of the patient and the public should be the chief concern and what laboratory managers can do to reach this ideal. Also in this category were two texts on management for health care professionals. The work by Liebler, Levine and Dervitz was fairly comprehensive while the work by Mc Connell spelled out the differences between industrial and health care management.

In the area of managerial responsibilities, there were two works which cover most of the subheadings. The work by Woodworth covered physical design, record-keeping and specimen storage, and quality control. The work by Bales and Dunfee discussed laboratory safety, quality control, and reporting systems. Both of these were written specifically for the cytology laboratory.

While not written specifically on the material requirements of a cytology laboratory, the text by Rappoport listed the factors to be considered in planning a laboratory and Garikes outlined a step-by-step approach to laboratory planning.

Melamed throughly covered quality control in the cytology laboratory.

There were two references for fire and safety procedures. The work by Harris was written specifically for cytology while the work by Hicks was written for the clinical lab.

The task of supervising personnel was found to be facilitated by the use of management tools. Management tools included job (position) descriptions, performance standards, and procedures.

In "The Position Description," Umiker explained the importance of position descriptions and listed what should be included in them. In "Good Position Descriptions Help Fit the Employee to the Job," he demonstrated the usefulness of them and gave suggestions on developing or refining them.

In "Standards of Performance," Umiker gave an overview of the use of performance standards, including discussions of criteria for good standards and joint supervisor-employee participation. Reed tied MBO and job descriptions into performance standards and related how the three function together. In "SPs Belong in Your Mangement Portfolio," Umiker listed techniques that were useful in the preparation of performance standards and related what forms of behavior were suitable for having performance standards written for them. In "Performance Standards Make Evaluations Almost Easy," Umiker related performance standards to job descriptions and performance appraisals.

The information from Bender on why procedure ~~materials~~ manuals were required and the possible uses of procedure manuals could be useful for cytotechnology educators. The article by Snyder and Pendergrass related the problems they encountered before they wrote their procedure ~~material~~ manuals and what they choose to include in it. Gough explained the process she used for updating

her department's procedure manual.

In the area of communication, Munn and Metzger's work was written for health care supervisors. The text by Smith and Bass was written for college level or post-secondary professional students. Krieg's work was written on laboratory communications and included a section on laboratory management. Munn's article considered the different aspects of nonverbal communication.

Interviews and appraisals were included in the area of supervision and interpersonal skills. Metzger in "Interviewing Skills: Selecting the Right Candidate," outlined a step-by-step approach to the employment interview. Levoy gave helpful suggestions on conducting the interview. The article by Ivey was concerned with the legal aspects of interviewing.

Wolfgang and Brigando presented an overview of performance appraisals. Graves described noncomparative and comparative methods of appraisal. In "Eleven Common Errors in Performance Reviews," Umiker described some of the most common errors made during interview appraisals and offered solutions for them.

The final area under the heading of supervision and interpersonal skills was counseling and discipline. The work by Roseman was an overview on the subject of counseling. Galosy presented a five-step approach to changing employee's behavior while Lynn presented a two-step approach.

In "How to Discipline: The Positive Approach," Metzger presented the rules and principles of positive discipline.

Asherman contrasted progressive discipline with corrective (positive) discipline. Asherman and Vance presented the uses for documentation in improving employee performance.

The setting of goals and objectives was found to be an important facet of leadership. The text by Deegan presented a logical approach to implementing MBO in hospitals. Mc Conkey presented a similar approach for nonprofit organizations. Kessler presented the principles, process, and applications of MBO for health care managers.

Snyder tied in MBO and management styles, concentrating mainly on Theory X and Theory Y. Loder discussed incorporating both Theory X and Theory Y management into one's management style when appropriate. Martin discussed the merits of drawing employees into the management process. Shortell presented the effects of Theory Z on hospital management while Joiner gave two exampls of using Theory Z in industry.

The College of American Pathologists Workload Recording Committee presented the basic concepts of workload recording. Shuffstall and Hemmaplardh related staffing to job descriptions, work schedules, and workload measurements. Jones found graphs useful in determining his staffing needs.

Finally, Porter-O'Grady described the planning process. Haimann discussed planning, its relationship to policies, methods and procedures, and budgets as a part of planning. Bennington, Westlake and Louvau presented basic principles of financial management for the clinical laboratory. Shuffstall

and Hemmaplardh outlined the process of financial planning for the laboratory. Maratea presented a common-sense approach to preparing a budget.

Conclusions

The need for management training for laboratory technologists is well recognized. However, a great number of laboratory technology training programs offer little, if any, management training.

There is a great deal of literature written on health care management, much of it on laboratory management. The problem may not lie in the lack of material, but rather, sorting through the abundance of material to find that which is pertinent and applicable.

However, while much has been written on laboratory management specifically as it applies to medical technologists, much less has been written on laboratory management for cytotechnologist. Even less has been written on how to teach laboratory management to cytotechnology students. It is hoped that this study will be a useful tool for cytotechnology instructors in their search for literature for their management curricula.

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